



july 2008

a word of welcome from the executive committee

The EMVCo Entry Point Specification v1.0 was finalised and published in May 2008 and is available for download from the EMVCo website – www.emvco.com. Work is now in progress towards the development of testing processes for this specification and more information can be found on this, and the status of tests for the EMV Contactless Communication Protocol v2.0 Specification, in the Contactless Working Group and Terminal Approval Working Group Updates, both found further into this newsletter.

Separately, EMVCo has been working to establish formal relationships with a number of industry groups to ensure collaboration on industry-wide initiatives. EMVCo has engaged with the European Payment

Council on the Single Euro Payments Area (SEPA) initiative and discussions have taken place with GlobalPlatform, the GSM Association and the Near Field Communication (NFC) Forum as EMVCo establishes its role in the move to mobile proximity payment.

Finally, the chairmanship of both the Executive Committee and the Board of Managers has changed with effect from July 2008, following the annual rotation of this responsibility among EMVCo's three member organisations. Tad Fordyce from Visa Inc. will chair the Executive Committee for the 2008-9 term and over the same period Tac Watanabe from JCB International will assume chairmanship of the Board of Managers.

update: board of advisors

The EMVCo Executive Committee would like to welcome two new organisations - the Bank of China and Cathay United Bank - to the EMVCo Board of Advisors, in addition to new advisor representatives from Cartes Bancaires, Citibank, N.A. and RHB. Together with other EMVCo Advisors from the global payments industry, these organisations and individuals will provide feedback and counsel to the EMVCo Executive Committee with regard to EMVCo operations and its future direction.

common core requirements working group update

The Discussion Document for Low-value Payment Implementations was published by the Common Core Requirements Working Group (CCWG) in May on the EMVCo website. This document illustrates how to configure the Common Payment Application (CPA) for different behaviours in different Profiles – for example, a Low-value Profile and a General Profile - and is now available for download.

The CCWG has additionally worked on a number of editorial clarifications and updates to existing bulletins for both the Common Core Definitions (CCD) and CPA Specifications to facilitate their implementation. A number of new specification update bulletins were

published for both CCD and CPA. All of these updates are available to view on the EMVCo website.

Finally, the CCWG is collaborating with the Card Approval Working Group on the development of a Specification Release Policy. The intent is to make it easier for stakeholders to manage the various update bulletins which may be published throughout the year and promote the stability of the CCD and CPA Specifications. The policy will clarify which of the published updates, on an annual basis, are mandatory in order that a product will meet testing requirements for that specific year. An initial discussion regarding the policy has been held with the Advisors and further updates will be reported in a future newsletter.

security working group update

Last year the Security Working Group (SWG) posted three draft documents on the EMVCo website that describe three options for future offline cryptographic techniques that may ultimately supersede the current RSA (Rivest, Shamir and Adleman)-based mechanisms defined in Book 2 of the EMV version 4.1 Integrated Circuit Cards Specifications for Payment Systems. Although the current RSA-based mechanisms are estimated to be valid until sometime between 2025 and 2030, the SWG considers that it will take between 12 to 15 years for the infrastructure to be migrated in support of any new technique. Comments have been received on these drafts and the SWG is currently deciding on the preferred option and making specification refinements.

july 2008

mobile payment working group update

In 2008, the Mobile Payment Working Group (MPWG) has continued to progress a work plan which defines EMVCo's role in recognising and creating mobile payment requirements, specifications, testing and approval processes and which prioritises technical and industry outreach deliverables.

According to the work plan, in April the MPWG developed a high level architecture for the application selection mechanism that will allow users to select which financial application on their mobile handsets they wish to use for individual transactions. This mechanism helps to manage the usage of various protocols and technologies that exist on different handsets. The next step is for the MPWG to refine the architecture and complete a defining set of requirements to apply to the combination of the application activation user interface and the Proximity Payment Systems Environment application. This will involve ongoing collaboration with GlobalPlatform to ensure that EMVCo's requirements are aligned with existing complementary technology, relative to GlobalPlatform-based Secure Elements.

A high level framework for type approval in the mobile payment environment is also being developed and was presented to the Board of Advisors for feedback and comments at a meeting in June. A security framework document for mobile payments and handset requirements document are also in progress. The latter will be shared with mobile handset suppliers to ease the development of handsets capable of supporting mobile contactless proximity payment.

In addition to the collaboration with GlobalPlatform noted above, the MPWG and Contactless Working Group have recently engaged with the NFC Forum on related Common Communications Protocol activities. A formal liaison agreement between the two organisations is currently being sought. Additionally, the MPWG has presented to the GSM Association (GSMA) at a Pay-Buy-Mobile project meeting and is presently in the process of establishing a Memorandum of Understanding with the GSMA to establish areas of collaboration.

Finally, the MPWG has solicited feedback from the EMVCo Advisors regarding its work relative to mobile payment user interface and will take this into account when determining its future direction in this area.

terminal approval working group update

The Terminal Approval Working Group (TAWG) has recently released some operational data which outlines significant increases in the number of terminal approvals between 2006 and 2007. The volume of Interface Module Level 1 approvals has risen by 89% during this period and Level 2 Kernel approvals have seen a corresponding rise of 50%.

Starting 1 May 2008, the TAWG will release new test plans on an annual basis, with the next release scheduled for November 2008 and the subsequent one planned for November 2009. This action has been taken to facilitate the usage of the Multiple Configuration Kernel process by kernel providers. The only exception to the annual publication schedule will be in cases of severe field acceptance issues, when test case updates may be released intermittently.

Over recent months, the TAWG has been working to implement contactless in the EMV terminal type approval process and is currently introducing the Level 1 test process based on the EMV Contactless Communication Protocol Specification v2.0. The TAWG is also currently working on the Entry Point Test Process, which should be released by the end of 2008.

Finally, the TAWG held a vendor and laboratory meeting in May in Toronto. The purpose of the meeting was to obtain feedback on how to improve current processes and to present information relating to contactless Level 1 and Level 2 processes. The meeting was well attended and the content was positively received. All feedback obtained from vendors and laboratories will be considered for future working group discussion.

july 2008

interoperability working group update

The Interoperability Working Group (IWG) has enhanced the interoperability issues list – which can be found in the implementations section of the EMVCo website – with additional information of value to EMV stakeholders. A number of new indicators provide status updates on live issues and offer transparency regarding progress towards their resolution. One new indicator has been added to show the current transaction and volume severity of an issue against the original assessment of these two characteristics. An additional indicator has been added to all live issues which indicates the speed of advancement in field implementations.

The IWG has also been working on creating a renewal policy for EMVCo type approvals. Currently there is no expiration timeframe for letters of approval

issued by EMVCo for EMV compliant kernels and interface modules (IFMs). The ongoing need to ensure that products continue to comply with specified yet evolving requirements however, has led EMVCo to introduce a scheme under which type approvals for kernels must be renewed every three years and type approvals for IFMs must be approved every four years. Products must pass a renewal test prior to the renewal date in order to get an extended Letter of Approval from EMVCo. Further information can be found in General Bulletin number 34 which is published on the EMVCo website.

72 field issues have been reported since the IWG was formed in September 2002. Ten remain open and the IWG is continually working towards their resolution.

security evaluation working group update

The Security Evaluation Process for Integrated Circuit (IC) products, Common Core Definitions (CCD) and Common Payment Application (CPA) implementations is now available for device testing through numerous EMVCo accredited laboratories.

In recent months, further laboratories have received EMVCo accreditation following site visits to assess security and technical capability. A full list of EMVCo approved security evaluation laboratories can be found on the EMVCo website. The EMVCo website also contains a list of all certified IC devices, the Security Evaluation Process Description and a set of Security Guidelines for Vendors, which is available subject to signed confidentiality agreements and a business due diligence questionnaire. This latter document covers Security Guidelines for ICs and Security Guidelines for CPA/CCD IC Cards. A new Vendor Frequently Asked Questions (FAQ) document has recently been added to address common queries received from this stakeholder group.

In line with the promotion of best practices through the EMVCo Security Evaluation Process, EMVCo continues to support the work of the Joint Interpretation Library (JIL) Sub Working Group: the JIL Hardware Related Attacks Sub Group (JHAS), which has representation from all the leading card and chip vendors, evaluation laboratories and national certification bodies. Issues which warrant an industry response are tabled by EMVCo at this forum.

contactless working group update

The Contactless Working Group (CLWG) published the final version of the Entry Point Specification v1.0 in May, which replaces the earlier draft version published in October 2007. It incorporates minor edits and updates following a public comment review period and is now available for download from the EMVCo website.

EMVCo's work in the contactless arena has progressed one step closer to market recently thanks to the Terminal Approval Working Group's (TAWG) development of testing processes for the EMV Contactless Communication Protocol v2.0 and the Entry Point Specification v1.0. The forthcoming testing procedures will enable the industry to deploy both the EMV Contactless Communications Protocol and the Entry Point Specification within the marketplace, in order to maintain market momentum and facilitate forward compatibility. Subsequently, from a contactless perspective, this work is a significant advancement. Further information about the status of these tests can be found under the TAWG update within this newsletter.

july 2008

card approval working group update

The following suppliers have had their test tools qualified by EMVCo in recent months for the most current versions of the Common Core Definitions (CCD) and Common Payment Application (CPA) Test Cases, respectively version 4.1.c and version 1.0.c:

- Collis - CCD and CPA Level 2
- Integri - CCD and CPA Level 2
- SRC - CPA Level 2 (this test tool is restricted to testing SECCOS based implementations only)

To conduct CCD and CPA Card Type Approval testing, EMVCo utilises independent laboratories. The following laboratories have been accredited to perform EMV Card Type Approval Testing:

- DSV - Germany - CPA Level 2 (this test lab is restricted to testing SECCOS based implementations only)
- FIME Asia Test Centre - Taiwan
- FIME Europe Test Centre - France
- RFI Global Services - UK

To conduct the various types of audits described in the CCD and CPA Card Type Approval Processes, EMVCo utilises independent auditors. These auditors are qualified by EMVCo. EMVCo is pleased to announce the recent qualification of the following auditor to audit EMVCo accredited laboratories and electrical testing procedures for chips:

- Valience S.A. - Switzerland

Further details on qualified test tool providers, accredited laboratories and qualified auditors are available on www.emvco.com.

Looking ahead, the Card Approval Working Group (CAWG) plans to continue updating the test cases by adding clarifications and corrections, and by incorporating CPA specification update bulletins as they become available. Most recently, bulletin numbers 62 through 66 have been incorporated. The updated test cases are named version 4.1.d for CCD Level 2 Test Cases and version 1.0.d for CPA Level 2 Test Cases and are being released to test tool suppliers for development and subsequent qualification by EMVCo. Functional testing according to these revised test cases is expected to be available through accredited test laboratories from 1 November 2008. The current versions – CCD Level 2, version 4.1.c and CPA Level 2, version 1.0.c – will be deactivated on 1 February 2009.

EMVCo will make the EMV card Level 1 test cases and qualified test tools available for use by the payment systems for testing all cards from January 2009.

Finally, in Q3 08, the CAWG will start work to develop contactless Level 1 test cases and test tools, including analogue and digital testing, for contactless cards based on the EMV Contactless Communications Protocol Specification v2.0. This work will be targeted for completion by the end of Q1 09.

card terminal working group update

In recent months, the Card Terminal Working Group (CTWG) has published a number of specification update bulletins for the core EMV Integrated Circuit Specifications. Perhaps the most significant of these is Draft Specification Update Bulletin 70, titled Selectable Kernel Configurations. This bulletin proposes changes to the EMV Specification which would allow terminals to vary their capabilities depending upon particular characteristics of the transaction being processed, and on a transaction-by-transaction basis. This would allow the terminal to adapt automatically to certain business requirements and scenarios. For example, a terminal may vary whether or not to require cardholder verification depending upon the value of a particular transaction, thus facilitating speedy low value payment scenarios. The public comment period for the draft bulletin ended on 11 July, and is now being finalised.

A number of bulletins and application notes have been published since the release of the EMV Integrated Circuit Specifications version 4.1 in May 2004. As this has made the specifications slightly challenging to read, the CTWG has incorporated all these updates into the core EMV Specifications and has published a new release – version 4.2 – in June. This new version of the EMV Specifications incorporates only pre-published material and is intended to simply update the core specification with all relevant bulletins and notes to improve readability. This new release of the EMV Specifications is now available on the EMVCo website.